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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/841,661
Filing Date: April 24, 2001
Appellant(s): DELTA ET AL.

Denis G. Maloney
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 28 February2008 appealing from the Office action

mailed 18 October 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,944,599	Vogel et al.	09-2005
20020029180	Kirwin et al.	03-2002
20010042033	Sposito	11-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-19 are not sufficiently precise due to the combining of two different statutory classes of invention in a single claim. The preamble the claim refers to a system, but the body of the claim discusses the specifics of a process ("trade monitoring…, trade comparison …, trade filtering…"). A claim is considered indefinite if it does not apprise those skilled in the art of its scope. Amgen, Inc. v. Chugai Pharm. Co., 927 F. 2d 1200, 1217 (Fed. Cir. 1991).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-19 are rejected under 35 U.S.C. §101 because the claimed invention is directed

to a non statutory subject matter.

35 U.S.C. §101 requires that in order to be patentable the invention must be a "new and useful

process, machine, manufacture or composition of matter or new and useful improvement

thereof" (emphasis added). Applicant's claims mentioned above are intended to embrace or

overlap two different statutory classes of invention as set forth in 35 U.S.C. §101. The claim

begins by discussing a computer system (ex. Preamble of claims 1-19), the body of the claim

discusses the specifics of a process ("trade monitoring…, trade comparison …, trade filtering…")

(see rejection of claims under 35 U.S.C. §112, second paragraph, for specific details regarding

this issue). "A claim of this type is precluded by express language of 35 U.S.C. §101 which is

drafted so as to set forth statutory the statutory classes of invention in the alternative only", Ex

parte Lyell (17USPQ2d 1548).

For examination purpose, the examiner will give these claims their broadest interpretation and

treat them as process/method claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4,12, 23-24, 30-31 and 34 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Vogel et al (US Patent 6944599) in view of Kirwin et al (USPAP

20020029180).

Re Claims 1, 23 and 30: Vogel teaches a computer system executing a trade filtering process for

identifying and preventing the processing of suspect trades, the computer system executing

processes comprising: a trade monitoring process for monitoring a trade price associated with

each trade of a specific item during a trading session (col. 2, lines 27-30); a trade comparison

process, responsive to the trade monitoring process, for comparing the trade price of each trade

of a specific item to a known acceptable price for that specific item to identify which the trades

are suspect trades (col. 6, lines 10-19); a suspect trade filtering process, responsive to the trade

comparison process (col. 3, lines 22-26).

Vogel does not explicitly teach a suspect trade filtering process, responsive to the trade

comparison process, *for preventing the processing of the suspect trades*, and a specific stock.

However, Vogel teaches items. Kirwin teaches a suspect trade filtering process, responsive to the

trade comparison process, ***for preventing the processing of the suspect trades*** (paragraph 0049).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the Vogel to adopt the teachings of Kirwin before processing the suspect

trade to minimize expenses associated with rectifying the suspect trade.

Re Claims 2 and 24: Vogel teaches an acceptable price determination process for determining the

value of the known acceptable price (col. 6, lines 10- 19).

Re Claim 3: Vogel/Kirwin teaches a known price determination process for determining a last

known good price for the specific item being traded (Vogel: col. 1, lines 49-57; Kirwin:

paragraph 0050).

Re Claim 4 and 31: Vogel/Kirwin teaches a price acceptability window process for determining

the known acceptable price, wherein the known acceptable price is an acceptable range of prices

which span from a specific amount below the last known good price to a specific amount above

the last known good price, wherein the trades which have trade prices that do not fall within the

acceptable range of prices are considered suspect trades (Vogel: col. 2, lines 39-47, col. 4, lines

31-40; Kirwin: paragraph 0049).

Re Claims 12 and 34: Vogel/Kirwin teaches a suspect trade resolution process for determining if

each the suspect trade is a bad trade (Vogel: col. 4, lines 54-58; Kirwin: paragraph 0049).

Claims 5-11,13-18, 20, 22, 25-28, 32 and 35 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Vogel in view of Kirwin, and further in view of Sposito (US Patent

Application 2001/0042033).

Re claims 5 and 32: Vogel/Kirwin do not explicitly teach the steps wherein the acceptable price

determination process includes: a last known good price adjustment process for adjusting the last

known good price of the specific stock being traded to be equal to the trade price of the last non-

suspect trade.

However, Sposito teaches the steps wherein the acceptable price determination process includes:

a last known good price adjustment process for adjusting the last known good price of the

specific stock being traded to be equal to the trade price of the last non-suspect trade (section

[0030]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of

the invention to modify Vogel to include the steps disclosed above as taught by Sposito so that

acceptable trade prices can be automatically adjusted and updated without any need for human

input thereby creating a new range or boundaries of acceptable trade prices for items as the trade

progresses.

Re claims 6 and 7: Vogel/Kirwin do not explicitly teach the step wherein the specific amount

above the last known good price and the specific amount below the last known good price are

fixed dollar amounts; the specific amount above the last known good price and the specific

amount below the last known good price are a percentage of a first trade price.

Sposito teaches the step wherein the specific amount above the last known good price and the

specific amount below the last known good price are fixed dollar amounts (section [0018]); the

specific amount above the last known good price and the specific amount below the last known

good price are a percentage of a first trade price (section [0017]). Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to modify Vogel to include

the steps disclosed above as taught by Sposito so that acceptable trade prices can be

automatically adjusted and updated using fixed amount or percentages without any need for

human input thereby creating a new range or boundaries of acceptable trade prices for items as

the trade progresses.

Re claims 9-11: Vogel/Kirwin do not explicitly teach a last known good price initiation process

for adjusting the last known good price of the specific stock being traded to be equal to a

reference value whenever the stock is being traded for the first time in the trading session; the

reference value is the trade price of the specific stock being traded; the reference value is a

previous day's closing price.

Sposito teaches a last known good price initiation process for adjusting the last known good

price of the specific stock being traded to be equal to a reference value whenever the stock is

being traded for the first time in the trading session (section [0023]); the reference value is the

trade price of the specific stock being traded (section [0023]); the reference value is a previous

day's closing price (section [0031]). Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention to modify Vogel to include the steps disclosed above

as taught by Sposito so that acceptable trade prices can be automatically adjusted and updated

without any need for human input thereby creating a new range or boundaries of acceptable trade

prices for items as the trade progresses.

Re claims 13-17, 20, 22, 25-28, 32 and 35: See claims 1-5 analyses discussed above.

Furthermore Vogel/Kirwin teach a suspect trade repository process for storing the trade price of

the suspect trade (col. 3, lines 22-32); a non-suspect price determination process for determining

the trade price of at least a first non-suspect trade of the specific item to occur after the suspect

trade (col. 5, lines 38-67;col. 7, lines 1-9; Figs. 4-8); a suspect trade acceptability window

process for determining a suspect acceptability price range, wherein the suspect acceptability

price range spans from a specific amount below the trade price of the suspect trade to a specific

amount above the trade price of the suspect trade, wherein the suspect trade is considered a non-

suspect trade if the trade price of the at least a first non-suspect trade falls within the suspect

acceptability price range (col. 2, lines 39-47; col. 4, lines 31-40); wherein the at least a first non-

suspect trade is one trade (col. 5, lines 38-67); wherein the at least a first non-suspect trade is

three consecutive trades (col. 5, lines 38-67).

Vogel/Kirwin do not explicitly teach a last known good price adjustment process for adjusting

the last known good price of the specific stock being traded to be equal to the trade price of the

last non-suspect trade; the specific amount above the trade price of the suspect trade and the

specific amount below the trade price of the suspect trade are fixed dollar amounts; wherein the

specific amount above the trade price of the suspect trade and the specific amount below the

trade price of the suspect trade are a percentage of the trade price of the suspect trade; However,

Sposito teaches the a last known good price adjustment process for adjusting the last known

good price of the specific stock being traded to be equal to the trade price of the last non-suspect

trade (section [0030]); wherein the specific amount above the trade price of the suspect trade and

the specific amount below the trade price of the suspect trade are fixed dollar amounts (section

[0018]); wherein the specific amount above the trade price of the suspect trade and the specific

amount below the trade price of the suspect trade are a percentage of the trade price of the

suspect trade (section [0017]). Therefore, it would have been obvious to one of ordinary skill in

the art at the time of the invention to modify Vogel to include the steps disclosed above as taught

by Sposito so that acceptable trade prices can be automatically adjusted and updated without any

need for human input thereby creating a new range or boundaries of acceptable trade prices for

items as the trade progresses.

Re claim 20: See claim 17 analysis above. Vogel/Kirwin do not explicitly teach the steps

wherein the acceptable price determination process includes: adjusting the last known good price

of the specific stock being traded to be equal to the trade price of the last non-suspect trade.

However, Sposito teaches the steps adjusting the last known good price of the specific stock

being traded to be equal to the trade price of the last non-suspect trade (section [0030]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Vogel to include the steps disclosed above as taught by Sposito so that

acceptable trade prices can be automatically adjusted and updated without any need for human

input thereby creating a new range or boundaries of acceptable trade prices for items as the trade

progresses.

Re claim 21: See claim 12 analysis above.

Re claim 22: See claim 13 analysis above.

Re claim 25: See claims 2-3 and 20 analyses above.

Re claim 26: See claim 9 analysis above.

Re claim 27: See claim 12 analysis above.

Re claim 28: See claims 20 and 25 analyses above.

Re claim 34: See claim 12 analysis above.

Re claim 35: See claim 13 analysis above.

Re claims 8 and 18: See claim 7 and 17 analyses above. Vogel, Kirwin and Sposito do not

explicitly teach the step wherein the percentage of the last known good price is 15%; the

percentage of the trade price of the suspect trade is 5%. However, Sposito teaches the specific

amount of last known good price and specific amount of the trade price of the suspect trade are a

percentage.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to set these numbers to 15% and 5% respectively as a matter of design choice.

Re claims 19, 29 and 33: Vogel, Kirwin and Sposito do not explicitly teach a validity filter

process for monitoring and examining a trade volume and a trade price wherein the validity filter

process discards trades whose the trade volume is negative, whose the trade volume is zero,

whose the trade price is negative, and whose the trade price is zero.

Official notice is hereby taken that it is old and well known in the electronic trading systems to

remove trades whose trade volume and trade price do not meet certain conditions.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to include the aforementioned steps to remove trades that are not desirable for the

trading activity thereby making the system more efficient.

(10) Response to Argument

The Examiner summarizes the various points raised by the Appellant and addresses them

individually.

A. Rejection of claims 1-19 under 35 U.S.C. § 112, second paragraph as being as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

Regarding independent claim 1 (representing claims 1-19), Appellant asserts that the

claim is directed to a computer system/apparatus or machine (see Appeal Brief , pages 10-12).

In Response to (A): Applicants admits that this claim is an apparatus. However, the body of the

claim does not contain any limitation indicating the structure of the apparatus. A system or an

apparatus claim should always claim the structure or the hardware that performs the function.

Applicant's claimed limitations comprising of processes/modules/software do not describe the

structure of the system.

For these reasons, the rejection under 35 U.S.C. § 112, second paragraph is maintained.

B. Rejection of claims 1-19 under 35 U.S.C. § 101 because the claimed invention is directed to a non statutory subject matter.

Regarding independent claim 1 (representing claims 1-19), Appellant asserts that the claim is directed to a statutory subject matter (see Appeal Brief, pages 12-14).

In Response to (B): Claim 1 recites in the preamble "a computer system for executing a trade filtering process for identifying suspect trades, the computer system executing processes comprising:" The body of the claim recites "trade monitoring..., trade comparison .. trade filtering....". "A claim of this type is precluded by express language of 35 U.S.C. §101 which is drafted so as to set forth statutory the statutory classes of invention in the alternative only", Ex parte Lyell (17USPQ2d 1548).

Also claim 1 is non-statutory because it is directed towards software, per se, lacking storage on a medium, which enables any underlying functionality to occur.

For these reasons, the rejection under 35 U.S.C. § 101 is maintained.

C. Rejection of claims 1-4, 12, 23-24, 30-31 and 34 under 35 U.S.C. § 103(a) as being unpatentable over Vogel et al (US 6944599) in view of Kirwin et al (USPAP 20020029180).

Claims 1-2, 23-24 and 30

Regarding independent claim 1 (representing claims 1-2, 23-24 and 30), Appellant argues

that Vogel is directed to an invention different from the Applicant's (see Appeal Brief, pages

15-18).

Examiner asserts that Vogel's invention is analogous to the Applicant's. Identifying

suspect trades is similar to identifying an irregular trade/activity/transaction.

Applicant further argues that Vogel does not teach or suggest "…a suspect trade filtering

process, responsive to the trade comparison process, for preventing the processing of suspect

trades". Examiner asserts that Vogel explicitly teach suspect trade filtering process, responsive

to the trade comparison process (col. 3, lines 22-26). As a preliminary matter, Examiner asserts

that the recitation "for preventing the processing of suspect trades" (claim 1) is an intended use

of the trade filtering process. The Examiner notes that the intended use (or field of use) of the

claimed invention must results in a structural difference between the claimed invention and the

prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art

structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a

process of making, the intended use must result in a manipulative difference as compared to prior

art. See In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and In re Otto, 312 F.2d 937,

939, 136 USPQ 458, 459 (CCPA 1963).

However, the Examiner introduced the Kirwin reference despite the fact that the intended

use of the recitation (i.e. for preventing the processing of suspect trades) is not positively

claimed, in order to show that preventing the processing of suspect (i.e. outside a reasonable

range) trade is well known in the art. Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention to modify the Vogel to adopt the teachings of Kirwin

before processing the suspect trade to minimize expenses associated with rectifying the suspect

trade.

For these reasons, the rejection of claims 1-2, 23-24 and 30 under 35 U.S.C. § 103(a) is

maintained.

Claims 3, 4 and 31

Regarding dependent claims 3, 4 and 31, Appellant argues that Vogel and Kirwin do not

teach or suggest "known price determination process for determining a last known good price

for the specific item being traded" and "a price acceptability window process for determining the

known acceptable price, wherein the known acceptable price is an acceptable range of prices

which span from a specific amount below the last known good price to a specific amount above

the last known good price, wherein the trades which have trade prices that do not fall within the

acceptable range of prices are considered suspect trades" (see Appeal Brief , pages 15-18).

Examiner asserts that Vogel and Kirwin teach these limitations at (Vogel: col. 1, lines 49-57;

Kirwin: paragraph 0050) and (Vogel: col. 2, lines 39-47, col. 4, lines 31-40; Kirwin: paragraph

0049) respectively.

Claims 12 and 34

Regarding dependent claim 12 (representing claims 12 and 34), Appellant argues that

Vogel and Kirwin do not teach a suspect trade resolution process for determining if each the

suspect trade is a bad trade. Examiner asserts that Vogel and Kirwin teach this limitation at

(Vogel: col. 4, lines 54-58; Kirwin: paragraph 0049).

D. Rejection of claims 5-11, 13-18, 20-22, 25-28, 32 and 35 under 35 U.S.C. § 103(a)

as being unpatentable over Vogel et al (US 6944599) in view of Kirwin et al (USPAP

20020029180), and further in view of Sposito (USPAP 20010042033).

Claims 5-8

Regarding dependent claims 5-8, Appellant argues that Sposito does not teach "a last known

good price adjustment process for adjusting the last known good price of the specific stock being

traded to be equal to the trade price of the last non-suspect trade", "wherein the specific amount

above the last known good price and the specific amount below the last known good price are

fixed dollar amounts", and "wherein the specific amount above the last known good price and

the specific amount below the last known good price are a percentage of a first trade price".

Examiner asserts that Sposito teaches these limitations at (paragraphs 0017, 0018, 0030).

Claims 9-11

Regarding dependent claims 9-11, Appellant argues that Sposito does not teach "a last known

good price initiation process for adjusting the last known good price of the specific stock being

traded to be equal to a reference value whenever the stock is being traded for the first time in the

trading session", "the reference value is the trade price of the specific stock being traded", and

"the reference value is a previous day's closing price".

Examiner asserts that Sposito teaches these limitations at (paragraphs 0023, 0031).

Claims 13, 14 and 15-19

Regarding dependent claim 13 (representing claims 13, 14 and 15-19), Appellant argues that

Vogel and Kirwin do not teach "a non-suspect price determination process… a suspect trade

acceptability window process… and a last known good price adjustment process for adjusting

the last known good price of the specific stock being traded to be equal to the trade price of the

last non-suspect trade".

Examiner asserts that Vogel teaches these limitations at (col. 3, lines 22-32; col. 5, lines 38-

67;col. 7, lines 1-9; Figs. 4-8). Furthermore, Examiner relied on Sposito for teaching "a last

known good price adjustment process for adjusting the last known good price of the specific

stock being traded to be equal to the trade price of the last non-suspect trade" (section 0030).

Examiner also noted that the repository process for storing the trade price of the said suspect

trade is treated as an intended use of the repository process.

Claim 20

Regarding independent claim 20, please refer to claims 1, 2 and 4 analyses above. Furthermore,

Examiner relied on Sposito for teaching the step adjusting the last known good price of the

specific stock being traded to be equal to the trade price of the last non-suspect trade (section

[0030]).

Claim 21

Regarding dependent claim 21, please refer to claim 12 analysis above.

Claim 22

Regarding dependent claim 22, please refer to claim 13 analysis above

Claim 25 and 27

Regarding dependent claim 25 (representing claims 25 and 27), please refer to claims 2-3 and 20

analyses above.

Claim 26

Regarding dependent claim 26, please refer to claim 9 analysis above.

Claim 28

Regarding dependent claim 28, please refer to claims 20 and 25 analyses above.

Claim 29

Regarding dependent claim 29, Examiner asserts that the concept of removing trades based on

certain conditionality is old and well known. For example, Tone et al (USPN 5596493) teaches

discarding trades whose trade volume is zero (see col. 7, lines 47-52).

Claim 32

Regarding dependent claim 32, please refer to claim 5 analysis above.

Claim 33

Regarding dependent claim 33, please refer to claim 29 analysis above.

Claim 35

Regarding dependent claim 35, please refer to claim 13 analysis above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related

Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,
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6 March 2008

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